Division Leader's Introduction

The year 2005 will be critical for LANSCE—we must refine our plan for refurbishment, and develop an implementation schedule that allows our users the greatest possible uninterrupted facility operation during LANSCE's refurbishment.

—Paul W. Lisowski

In 2004 the Los Alamos Neutron Science Center (LANSCE) completed its third year of operation as a User Facility for the National Nuclear Security Administration (NNSA) and the Department of Energy's Office of Science.

We set new performance records, with users from around the world performing 360 experiments during 1106 user visits at the Weapons Neutron Research Facility and the Lujan Neutron Scattering Center. Thirty dynamic measurements for the NNSA's weapons program were performed at the Proton Radiography facility. We also commissioned and dedicated a new Isotope Production Facility for the Office of Nuclear Energy, Science and Technology.

In all, it was a very successful year for LANSCE—as well as a safe one—we achieved our goal of going two years without a lost workday incident.

LANSCE is now over thirty-two years old, and it is clear that its infrastructure is in need of rejuvenation to ensure we continue to carry out our missions.

The three federal offices that support LANSCE (DOE-NNSA, DOE's Office of Science, and DOE's Office of Nuclear Energy) affirm the importance of ensuring LANSCE's operational reliability for the next decade—and beyond. There is no substitute for LANSCE's versatility and capability worldwide.

We have developed for the NNSA a Mission Need Justification plan to refurbish and revitalize the LANSCE accelerator and infrastructure. This project, LANSCE-R, will replace high-power radiofrequency systems, install a modern control system, replace aging accelerator system components, and provide other much-needed improvements.

The LANSCE-R project will ensure the future reliability necessary to continue meeting the science mission, and lay the foundation for future investment in LANSCE facilities, providing the enhancements needed by the next generation of scientists. In the words of LANL's Director Pete Nanos,

"LANSCE is a critical tool needed for our science-based nuclear deterrence mission. LANSCE's unique capabilities address weapons program issues and synergistically provide significant scientific benefit to the nation. We must not only ensure that LANSCE is refurbished to remain viable for the future, we must also develop increased capability to address emerging stewardship missions."

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We look forward to meeting that challenge, and to providing the new capabilities necessary to meet the challenges of future scientific exploration.